Estimating Storage Requirements

Given the complexity of today's data processing environments, it is almost impossible to provide methods to predict the exact storage requirements of a software product.

The following tables provides rough estimates about the fixed storage requirements of Entire Net-Work and its various components, ignoring operating system-related storage requirements, which typically vary from installation to installation.

Table 1 contains the amounts of storage obtained from the operating system based on parameter specification or appropriate defaults. It does not include storage areas that are directly related to the operating system, such as operating system control blocks, I/O-related buffers, and control blocks (except where they are part of Entire Net-Work program modules or data areas).

Table 2 contains the amounts of storage obtained from the Entire Net-Work buffer pools by the control module and the various line drivers.

Table 3 contains special storage requirements of the line drivers (such as special common system storage areas) in the various operating system environments.

- Table 1: Storage Areas Obtained from System
- Table 2: Storage Obtained from Entire Net-Work Buffer Pools
- Table 3: Special Storage Requirements of Line Drivers

Table 1: Storage Areas Obtained from System

	z/OS
Request queue: (NC parameter+1)*192	AS(X)
Attached buffers: (NAB parameter*4112)	AS(X)
Entire Net-Work buffer pools: (specified size + ca. 1% for administration, rounded up to nearest 2KB or 4KB)	
Asynchronous buffers Long-term buffers Short-term buffers Page-fixed buffers	AS(X) AS AS(X) AS
Entire Net-Work trace table	AS(X)
Entire Net-Work control blocks:	AS
Node Target Path	48 32 32
Driver TCPX	4KB 4KB 4KB 544 2048
Link TCPX	256 168 1KB 992 640
ADAIOR data areas:	AS
(for trace table, ECB list, etc.)	ca 2KB

Abbreviation	Meaning
AS	from address space (private, below 16MB if XA or XS)
AS(X)	from address space (private, above 16MB if XA or XS)
SYS	from system GETVIS area (VSE in VAE mode)
Part	from partition (VSE not in VAE mode)
Virt.M	from virtual machine
Comm.Pool	from common memory pool

Table 2: Storage Obtained from Entire Net-Work Buffer Pools

Buffer pools:	**Asynch**	**Long-term**	**Short-term**	**Page-fixed**
Segment size:	**64**	**64**	**512**	**2KB or 4KB**
Usage by:				
Control module		UB	MSG RPLY	
Queue managers			BLK	BLK

Explanations

BLK	Storage for outgoing transmission blocks (after compression and blocking), from short-term pool or page-fixed pool, depending on line driver requirements. Storage requirements for one transmission block include, in addition to the messages contained, 48 bytes for a transmission block header.
MSG	All messages sent or received; output messages kept until acknowledged by the access method, input messages kept until processed.
	The size of a message can be computed in the following way: 56 bytes for a message header + maxpath * 2 bytes for a node stack + 128 bytes for UB, ACB, etc. + size of FB, RB, SB, VB, IB to send or receive
RECV	Storage for incoming message data until transferred to short-term buffers (in paging systems only).
RPLY	A reply buffer for each user request for a target on this node if the information returned by the target will not fit into the original message buffer (that is, if a large record buffer or ISN buffer is to be returned to the user).
SMBLK	1 segment for each message that cannot be sent in one transmission, kept until the message is acknowledged by the adjacent node.
UB	(only if 31-bit mode:) 64 bytes per user request for a target on this node, for the duration of the Adabas call.
WTO	Operator messages; kept until the message is written.
2WAY	Storage for reply messages in the length of messages sent when the SEND 2WAY protocol is used (page-fixed in paging systems only).

Table 3: Special Storage Requirements of Line Drivers

Driver	**Special Storage Requirements**
TCPX	NUMUSERS*256 is initially allocated from buffer pool storage for the Active Client Table (ACT). This value may dynamically expand if required.

Note:
In addition to the storage estimates shown in the table, approximately 250KB storage is required for executable code.